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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,692	09/17/2001	Peter X. Ma	UMJ-105-B (UM1667)	9241

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EXAMINER

SZEKELY, PETER A

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,692

Applicant(s)

MA ET AL.

Examiner

Peter Szekely

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11, 13-15, 18-25 and 27-29 is/are rejected.
7) ☒ Claim(s) 12, 16, 17, 26, 30 and 31 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 07 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-11, 13-15, 18-25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakabayashi et al. 5,554,669, in view of Tezuka et al. 4,089,830, Wilson et al. 4,569,954, Wilson et al. 4,758,612, Engelbrecht 4,872,936, Okayabashi et al. 5,051,453, Kato et al. 5,520,725 or National Research Development Corporation GB 1,507,981.
3. All references have been discussed previously. Nakabayashi et al. disclose a hydrophilic/hydrophobic terpolymer and mole ratios in claim 1 monomers from column 5, line 63, to column 8, line 32 and use as a hardening agent for glass ionomer cement in column 10, lines 37-38. The secondary references all show fluoroaluminosilicate glass reacted with hydrophilic or hydrophilic/ hydrophobic copolymers. Accordingly, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to use the copolymer of Nakabayashi et al. as a setting agent for the glass of the secondary references in order to improve the adhesion of a dental cement to the tooth.

Response to Arguments

4. Applicant's arguments filed 1/18/05 have been fully considered but they are not persuasive. Applicants' specification on page 9, line 14 and page 10, lines 18-20 identifies the inventive material as cure-in –mouth cement or luting cements. Cements are adhesives. On page 16, line 5, use as an adhesive is specifically mentioned. Thus

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no teaching away exists. Applicants' claims do not exclude an emulsion and they do not identify applicants' compound as a solution. The statement about Nakayabashi et al. is teaching water soluble applications the patent's emulsions of polymer(s) is not understood. The monomer ratios are stated in claim 1. A polymer emulsion is just a polymer dispersed in water with the help of a surfactant. When used to harden a glass ionomer it becomes part of a composite. Applicants' attempt to make a distinction between the use of a copolymer and a copolymer emulsion is not justified by the claims. The rejection is maintained. The anticipation rejection is withdrawn because the primary reference does not actually disclose the glass ionomer cement. The 112 rejections are withdrawn in light of applicants' response.

Allowable Subject Matter

5. Claims 12, 16, 17, 26, 30 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The terpolymer of the primary reference has to contain sulfur.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Szekely whose telephone number is (571) 272-1124. The examiner can normally be reached on 7:00 a.m.-5:30 p.m. Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Peter Szekely
Primary Examiner
Art Unit 1714

P.S.
3/9/05